

REMARKS

Claims 1 – 10, 12 – 14, 24 – 30, and 32 - 34 are now pending in the application. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

REJECTION UNDER 35 U.S.C. § 103

Claims 1-10, 12-14, 24-30, and 32-34 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over either Mohri (USPN 4,765,848) or Panchanathan (USPN 5,725,792). This rejection is respectfully traversed.

Claims 1 and 3 have been amended to call for an alloy composition represented by $R_x(Fe_{1-a}Co_a)_{100-x-y-z}B_yM_z$ where R is at least one rare-earth element selected from the group consisting of Nd and Pr. Mohri et al does not teach such an alloy composition. More particularly, Mohri et al teaches an alloy that requires the use of Ce and La, which is different from the claimed invention. Moreover, Mohri et al contains no suggestion or motivation to employ an alloy with at least one rare earth element selected from the group consisting of Nd and Pr. As such, the claimed invention would not have been obvious in view of Mohri et al to one skilled in the art.

With respect to Panchanathan, the Examiner has relied on Panchanathan's example N which achieves a coercivity of 399.5 kA/m and overlaps the constituent ranges called for in claim 1 of the claimed invention. The Examiner thus alleges that one of ordinary skill in the art at the time the invention was made would have considered the invention obvious because the alloy taught by Panchanathan has a composition that overlaps the claimed composition. In support of this allegation, the Examiner has cited *In re Best*, 195 USPQ 430, 433 (CCPA 1977)

In re Best also states, however, that the prima facie case of obviousness may be rebutted by evidence showing that the prior art products do not necessarily possess the characteristics of the claimed product. As such, Applicants respectfully assert that the claimed invention achieves unexpected results that render the claims unobvious in view of Panchanathan.

Referring to page 28 of the specification of the claimed invention, it can be seen that the preferred coercive force lies in the claimed range of 430-720 kA/m. This value is much greater than the coercivity (399.5 kA/m) achieved by Panchanathan. Further, page 28 states that, "If the coercive force is lower than the lower limit value, demagnetization occurs conspicuously when a reverse magnetic field is applied depending upon the usage of the motor, and the heat resistance at a high temperature is deteriorated. On the other hand, if the coercive force exceeds the above upper limit value, magnetizability is deteriorated. Therefore, by setting the coercive force (H_{CI}) to the above range, in the case where the bonded magnet (cylindrical magnet in particular) is subjected to multipolar magnetization, a satisfactory magnetization with a sufficiently high magnetic flux density can be accomplished even when a sufficiently high magnetizing field cannot be secured, which makes it possible to provide high performance bonded magnets, especially high performance bonded magnets for motors." In view of the claimed coercivity in the range of 430-750 kA/m, which is much greater than that achieved by Panchanathan, and the advantages enumerated on page 28 of the specification of the application, Applicants respectfully assert that the products of Panchanathan do not possess the characteristics of the claimed invention, and therefore, the claimed invention is not obvious.

Moreover, Applicants respectfully assert that dependent claim 14, which calls for the average particle size of the magnetic powder to 0.5-150 μm , is not obvious. That is, Panchanathan teaches an average particle size of 200 μm (column 2, lines 15-16), which is much

greater than the claimed range. Further, Panchanathan does not suggest or provide motivation to utilize a particle size in the range of 0.5-150 μm . As such, the claimed particle size is not obvious.

Accordingly, reconsideration and withdrawal of the rejection is respectfully requested.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

Dated:

July 10, 2003

HARNESS, DICKEY & PIERCE, P.L.C.
P.O. Box 828
Bloomfield Hills, Michigan 48303
(248) 641-1600

GGs/BEW/JAH/ad

By:

G. Gregory Schivley
G. Gregory Schivley
Reg. No. 27,382
Bryant E. Wade
Reg. No. 40,344